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(21)Application number : 03-198476 (71)Applicant : SHIN ETSU CHEM CO LTD

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## (54) PRODUCTION OF RARE-EARTH PERMANENT MAGNET

### (57)Abstract:

PURPOSE: To obtain a well-balanced magnetic property by pressure-molding a mixed alloy powder in the magnetic field, sintering the molded body in a vacuum or atmosphere of inactive gas, and further applying aging heat treatment at such a low temperature as sintering temperature or below.

CONSTITUTION: An A alloy is composed of an R<sub>2</sub>T<sub>14</sub>B phase mainly (R: at least one or more kinds of rare-earth elements including Nd, Pr and Dy mainly, T: Fe and Co). A B alloy contains R, Co, Fe, B and Ga, and is composed of an R<sub>2</sub>T<sub>11</sub>4B phase and/or an R rich phase, and a combined phase with at least one or more kinds of RT<sub>24</sub>L phase, R<sub>23</sub> phase, RT<sub>22</sub> phase, R<sub>2</sub>T<sub>27</sub> phase and RT<sub>25</sub> phase. Thus a well-balanced magnetic property can be obtained.

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